Using the "Overlay Plot" Feature in EES

1.) Develop a set of equations.

```
{Known Inputs}
b[1..3] = [1.045, 5, 10] {Creates B Array With Three Components}
x[1..3] = [2,4,6] {Creates X array With Three Components}
m = 23  {Known Constant M}

{_____}

{duplicates i and k loops from 1 to 3}
duplicate i = 1,3
 duplicate k = 1,3
 y[i,k]=m*x[i]+b[k]
 end
end
```

Figure 1: Set of equations in EES equations window. Bottom loop solves for multiple components and top inputs create "input arrays".

2.) Solve the set of equations. At this point, make sure all units are correct. For the purpose of this tutorial, units won't be used.

Figure 2: Solutions window and corresponding arrays table.

3.) Set up an x-y plot with one variable (plots→new plot window→x-y plot). In this case, x and the first y variable will be plotted. Check "add legend item before selecting ok.
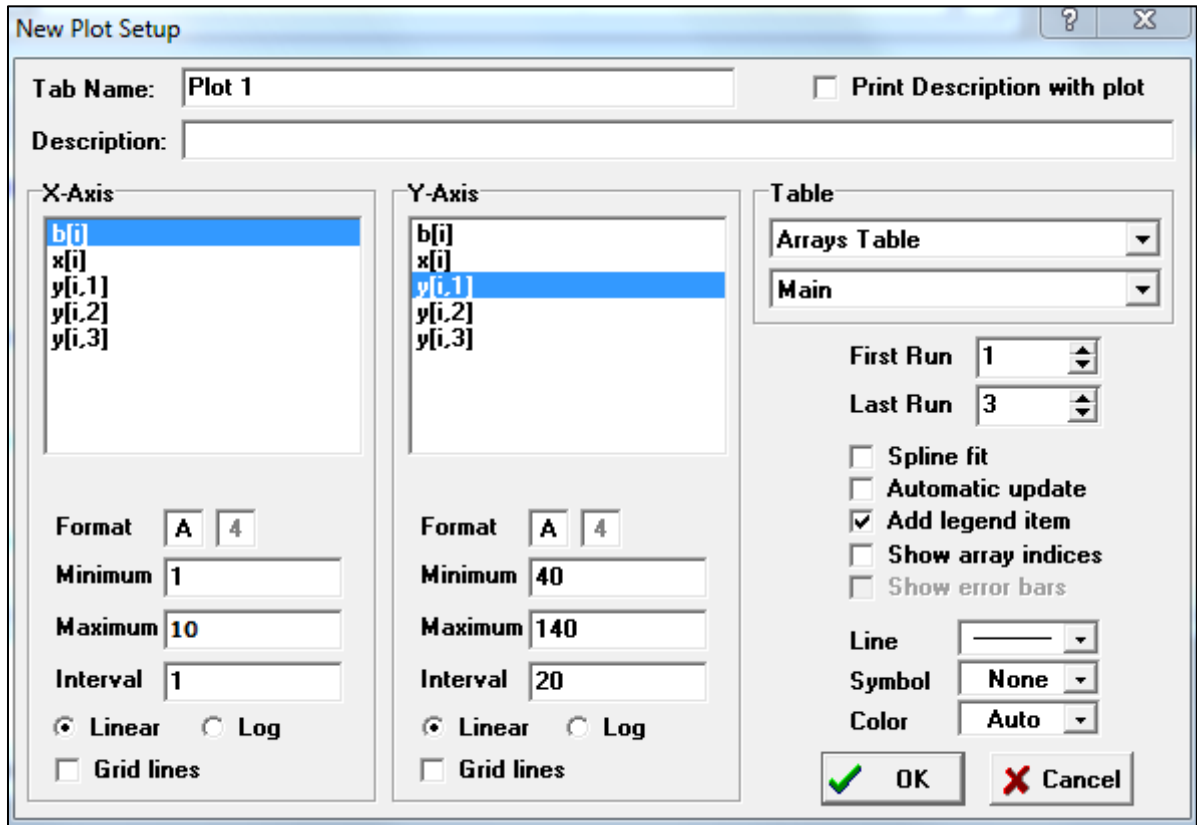

Figure 3: New plot command window. Notice "add legend item" is selected from the right side of the menu.

4.) A plot with y[I,1] will pop up over the equations window. To overlay plots, select "overlay plot" from the drop down plots menu (plots→overlay plot). Add the other two y variables to the plot by overlaying each variable (1 at a time or by holding control and selecting several at a time). Be sure to check the "add legend item" box with each selection (it's suggested to use different line styles and colors with each selection to separate the data).
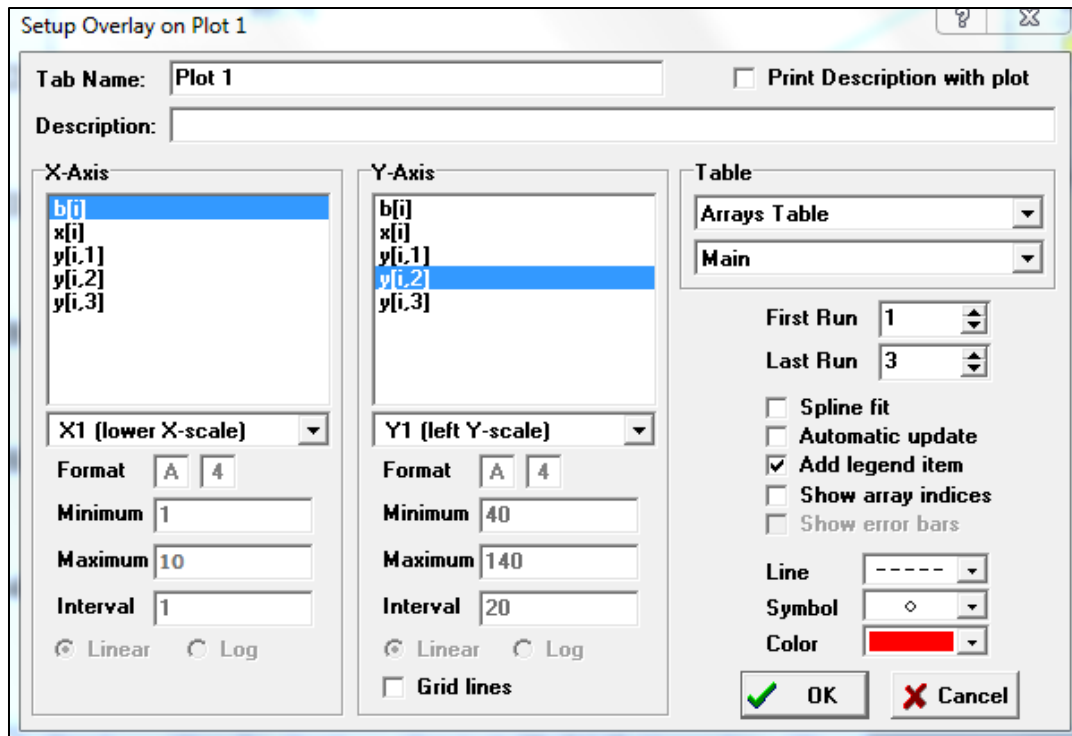
Figure 4: The second plot will overlay the first. The color and line style are changed as shown.
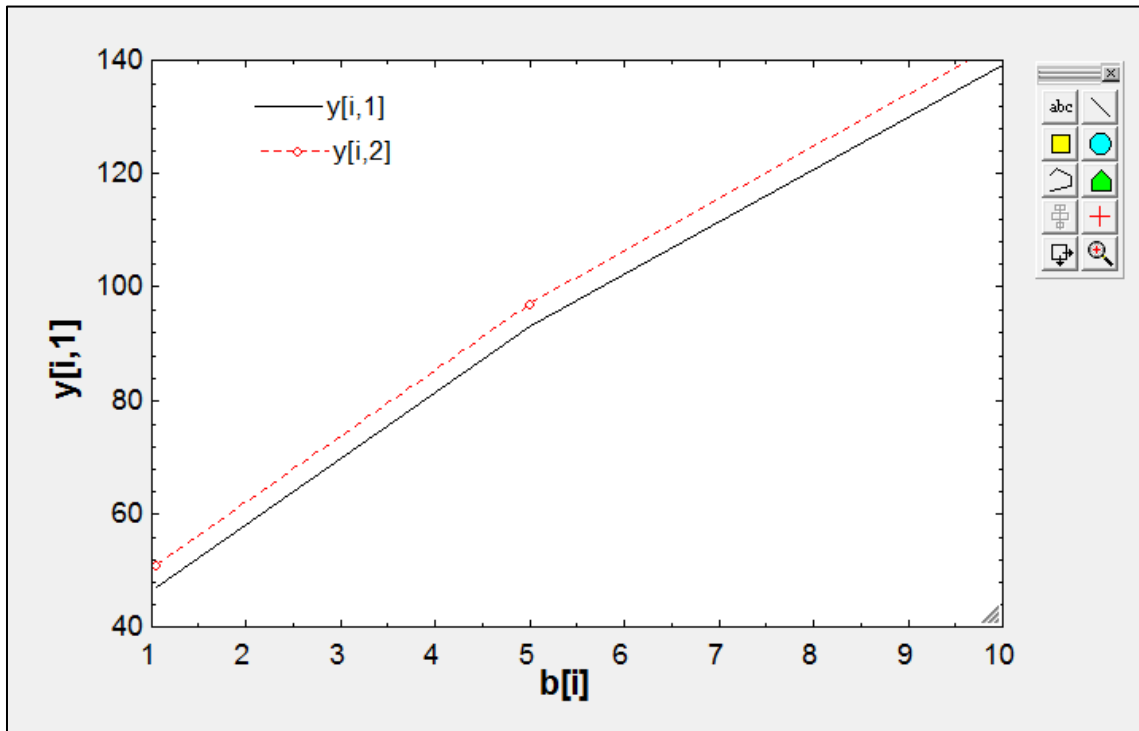

Figure 5: Image of the two plots. Notice the legend items added at the top.